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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/657,119	CONNER ET AL.	
	Examiner	Art Unit	
	Robert W. Wilson	2619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 September 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-84 and 90-92* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-84 & 90-92* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Claim Rejections - 35 USC § 112

1 The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2 Claims 1-6 & 9-84 & 90-92 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In General: The applicant has acted as their own lexicographer and the claimed target address=mathematical relation (target address or target identifier, target index) where the examiner believes that the target address or target identifier and target index are operands. The specification never defines the details of what an operand is nor when you put a value in the mathematical relation for an operand what value or values are returned for the target address. The expression mathematical relation (target address or target identifier, target index) is not known in the art.

Referring to claims 1, 4; where in the specification does the applicant define the limitation "wherein the target address has been related to and stored in the table entry based on a computed value from a relation computation using the table index and the target address as operands in the relation computation"

Referring to claims 9, 20, 31, 42, 58, 74, & 90; where in the specification does the applicant define the limitation "wherein the target identifier has been related to and stored in the table entry based on a computed value from a relation computation using the table index and the target address as operands in the relation computation"

Referring to Claims 14, 25, 36, 47, 63, & 79, where in the specification does the applicant define the limitation ""receiving the table index and the target identifier as operands for the relation computation; hashing the table index to generate a first has value; hashing the target identifier to generate a second has value; and hashing the first hash value and the second has value to generate a computed value"?

Referring to Claims 18, 29, 40, 56, & 72, where in the specification does the applicant define the limitation that the target identifier is a network physical address? Does the applicant mean that the next hop address is the network physical address in which case the applicant means that the network physical address is a target object and not a target identifier.

Referring to Claim 19, 30, 41, 57, & 73, where in the specification does the applicant define the limitation that the target identifier is the Uniform Resource Identifier? On Page 13 line 18 the applicant specifies a requesting a URL address which implies that the address is a destination address and not a target identifier)

Referring to Claims 54, 70, & 86, where in the specification does the applicant define the limitation that a location identifier is a table index?

Referring to claims 1-3 & 20-30 & 58-69. The applicant has claimed means for X where there are a plurality of Xs. Applicants drawings do not show every individual means for X as specified in these claims. Applicant's specification does not explain every individual X means for; therefore, the specification lacks antecedent basis for these claims.

Claim Rejections - 35 USC § 112

3 The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-6 & 9-84 & 90-92 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Referring to claims 1, 4; what is meant by "wherein the target address has been related to and stored in the table entry based on a computed value from a relation computation using the table index and the target address as operands in the relation computation" ? How can the examiner assess the metes and bounds of this limitation when the examiner does not know what the mathematical relation means?

Referring to claims 9, 20, 31, 42, 58, 74, & 90; what is meant by "wherein the target identifier has been related to and stored in the table entry based on a computed value from a relation computation using the table index and the target address as operands in the relation computation" How can the examiner assess the metes and bounds of this limitation when the examiner does not know what mathematical relationship means?

Referring to Claims 14, 25, 36, 47, 63, & 79, what is meant by "receiving the table index and the target identifier as operands for the relation computation; hashing the table index to generate a first has value; hashing the target identifier to generate a second has value; and hashing the first hash value and the second has value to generate a computed value"? How can the examiner assess the metes and bounds of this limitation when the examiner does not know what the mathematical relation means?

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 31-41 & 74-84 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Referring to claims 31 & 74, the applicant is claiming a computer program product and the rest of the preamble has been treated as intended use. The steps defined after comprising do not breath life in to the claims nor do they provide any interrelationship description for the computer program product. A computer program product is software which falls under the category of a judicial exception which is non-statutory subject material and therefore is not patentable. This same argument also applies to the dependent claims associated with these two independent claims.

Drawings

7. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims.

Referring to claims 1-3 & 20-30 & 58-69. The applicant has claimed means for X where there are a plurality of Xs. Applicants drawings do not show every individual means for X as specified in these claims. Therefore, all of the plurality of Xs must be shown or the feature(s) canceled from the claim(s) or the claims must be cancelled.. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing

sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 1-8, 17-18, 28-29, 39-40, 55-56, 71-72, & 90-92 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art in view of Callon (U.S. Patent No.: 6,643,287)

Referring to Claim 1, Admitted Prior Art teaches: router (Figs 1A, 1B, Figs 2A, Fig 2B, Fig 2C, and Fig 2D); comprising:

computer readable medium (RAM or ROM per Fig 1B);

plurality of links (124 per Fig 1B inherently has a plurality of links);

retrieving means (CPUS per Fig 1B are retrieving means)

hashing means for hashing the key to determine a table index into a table (CPUs per Fig 1B perform hashing of a key per 222 per Fig 2D)

Reading means for reading a target address from a table entry using the table index (CPUS per Fig 1B are reading means which read the target address per 226 per Fig 2D)

wherein the target address has been related to and stored in the table entry based on a computed value from a relation computation using the table index and the target address as operands in the relation computation (202 per Fig 2D has target address which has been related to and stored in a table entry based on computed value from a relation using table index and target address as operand in the relation computation)

modifying means for modifying (The CPUs per Fig 1B are the modifying means)

The Admitted Prior Art does not expressly call for: hashing the destination address and modifying the data packet by storing the target address in the data packet as a next-hop destination address.

Callon teaches: hashing the destination address and modifying the data packet by storing the target address in the data packet as a next-hop destination address (Hashing the destination address to determine an inherent key and then utilizing the key to determine the next hop which inherently requires inserting the next hop destination address into the packet

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the hashing the destination address of Callon to the retrieving means the Admitted Prior Art and modifying the data packet by storing the target address in the data packet as a next-hop destination address of Callon to the modifying means of the Admitted Prior Art in order to build a system which can route packets.

In addition the Admitted Prior Art teaches:

Regarding Claims 2, further comprising relating means for relating a particular table entry to a target address (CPUs per Fig 1B are relating means which perform relating per 226 per Fig 2D)

Generating means for generating, for each target address in the set of target address (CPUs per Fig 1B are generating means which perform relating per 202 per Fig 2D)

choosing means for choosing a computed value using the table index for a particular table entry and to a target address as operands in the relation computation to obtain a set of computed values (CPUs per Fig 1B are choosing means

which perform 226 per Fig 2D)

determining means for determining a related target address for the particular table entry based on the chosen computed value where the chosen computed value was computed using the related target address as input (CPUs per Fig 1B are determining means which perform determining per 226 and 232 per Fig 2D

Regarding Claim 3, further comprising:

Obtaining means for obtaining a set of target address (CPUs per Fig 1B are obtaining means which perform obtaining per 226 per Fig 2D

Relating means for relating, for each table entry, a target address from the set of target address to a table entry such that each table entry is related with
one and only target address (CPUs per Fig 1B are relating means which perform relating per 226 per Fig 2D

storing means for storing in each table entry its related target address (202 per Fig 2D is storing means)

Referring to Claim 4, Admitted Prior Art teaches a routing method in a data processing system (Figs 1A, 1B, Figs 2A, Fig 2B, Fig 2C, and Fig 2D perform the method); comprising:

retrieving (CPUS per Fig 1B perform retrieving)

hashing for hashing the key to determine a table index into a table (CPUs per Fig 1B perform hashing of a key per 222 per Fig 2D)

Reading a target address from a table entry using the table index (CPUS per Fig 1B perform reading of the target address per 226 per Fig 2D)

Reading a target address form a table entry using the table index wherein the target address has been related to and stored in the table entry based on a computed value from a relation computation using the table index and the target address as operands in the relation computation (202 per Fig 2D has target address which has been related to and stored in a table entry based on computed value from a relation using table index and target address as operand in the relation computation)

modifying (The CPUs per Fig 1B perform modifying)

The Admitted Prior Art does not expressly call for: retrieving a destination address from the data packet, hashing the destination address and modifying the data packet by storing the target

address in the data packet as a next-hop destination address and transmitting the modified data packet

Callon teaches: retrieving a destination address from the data packet, hashing the destination address and modifying the data packet by storing the target address in the data packet as a next-hop destination address and transmitting the modified data packet (examines the destination addres or retrieving, hashing the destination address to determine an inherent key and then utilizing the key to determine the next hop which inherently requires inserting the next hop destination address as well as transmitting the data packet into the packet

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the retrieving the destination address from the data packet, hashing the destination address of modifying the data packet by storing the target address in the data packet as a next-hop destination address and transmitting of Callon to the system of the Admitted Prior Art in order to build a system which can route packets.

In addition the Admitted Prior Art teaches:

Regarding Claims 5, further comprising the step of relating a particular table entry to a target address (CPUs per Fig 1B perform relating per 226 per Fig 2D) which
For each target address in the set of target address, generating a computed value using the table index for a particular entry and a target address as operands in the relation computation to obtain a set of computed values (CPUs per Fig 1B generating a computed value per 226 per Fig 2D)

Choosing a computed value from the set of computed values based upon the mathematical relationship among the set of computed values (CPU per Fig 1B performs per 226 & 232 per Fig 2D)

determining a related target address of the particular entry based on the chosen computed value wherein the chosen computed value was computed using the related target address as input (CPUs per Fig 1B perform computing per 232 per Fig 2D)

Regarding Claim 6, further comprising:

Obtaining a set of target address (CPUs per Fig 1B perform obtaining per 226 per Fig 2D

For each table entry relating a target address form the set of target address to a table entry such that each table entry is related with only one target address (CPUs per Fig 1B perform relating per 226 per Fig 2D

storing in each table entry its related target address (202 per Fig 2D stored)

Referring to Claim 7, Admitted Prior Art teaches: A method in a data processing system for mapping a source identifier to a target identifier in a set of target identifiers (Figs 1A, 1B, Figs 2A, Fig 2B, Fig 2C, and Fig 2D perform the method) the method comprising the steps of:

Managing a data structure in a computer readable medium wherein each entry within the data structure stores information associated with a single target identifier and wherein a single target identifier is related to one or more entry locations (CPUs per Fig 1B manage the Target set per Fig 2D or data structure associated with Targets or identifiers)

Hashing the source identifier to a location identifier of an entry in a data structure (226 has values in 202 per Fig 2D)

Retrieving information associated with the target identifier from the entry in the data structure using the location identifier (226 per Fig 2D retrieves)

And obtaining a mapped target identifier from the retrieved information associated with the target identifier (Fig 2D)

The Admitted Prior Art does not expressly call for: wherein the processing speed with which the source identifier is mapped to the mapped target identifier is independent of a total number of target identifiers in the set of target identifiers

The Admitted Prior teaches: Hash function performs the processing in parallel per Fig 2D.

It would have been obvious to one of ordinary skill in the art at the time of the invention that the the processing speed with which the source identifier is mapped to the mapped target identifier is independent of a total number of target identifiers in the set of target identifiers because the processing is performed in parallel.

In addition the Admitted Prior Art teaches:

Regarding claim 8, wherein the method for mapping the source identifier to the target identifier is table with respect to changes in the set of target identifier is stable with respect to changes in the set of target identifier(Target Set per Fig 2D provides a unique mapping even if the target identifiers are changed the result will be unique or stable)

Retrieving information associated with the target identifier from the entry in the data structure using the location identifier (The associated data per Fig 3 is retrieved based upon pointer or target identifier)

And obtaining a mapped target identifier from the retrieved information associated with the target identifier (The pointers or target identifiers per Fig 3 are mapped)

Referring to claim 17, the Admitted Prior Art teaches: the method of claim 9,

The Admitted Prior Art does not expressly call for: wherein the source identifier is a network protocol address

Callon teaches: wherein the source identifier is a network protocol address (Hashing the destination address to determine key and then utilizing the key to determine the next hop which inherently requires inserting the next hop destination address into the packet

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the network address of Callon in place of the key of the Admitted Prior Art in order to build a system which can route packets.

Referring to claim 18, the Admitted Prior Art teaches: the method of claim 9,

The Admitted Prior Art does not expressly call for: wherein the target identifier is a network physical address

Callon teaches: wherein the target identifier is a network physical address (Hashing the destination address to determine key and then utilizing the key to determine the next hop which inherently requires inserting the next hop destination address into the packet

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the network physical address of Callon to in place of the key of the Admitted Prior Art in order to build a system which can route packets.

Referring to claim 28, the Admitted Prior Art teaches: the apparatus of claim 20,

The Admitted Prior Art does not expressly call for: wherein the source identifier is a network protocol address

Callon teaches: wherein the source identifier is a network protocol address (Hashing the destination address to determine key and then utilizing the key to determine the next hop which inherently requires inserting the next hop destination address into the packet

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the network address of Callon in place of the key of the Admitted Prior Art in order to build a system which can route packets.

Referring to claim 29, the Admitted Prior Art teaches: the apparatus of claim 20 ,

The Admitted Prior Art does not expressly call for: wherein the target identifier is a network physical address

Callon teaches: wherein the target identifier is a network physical address (Hashing the destination address to determine key and then utilizing the key to determine the next hop which inherently requires inserting the next hop destination address into the packet

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the network physical address of Callon to in place of the key of the Admitted Prior Art in order to build a system which can route packets.

Referring to claim 39, the Admitted Prior Art teaches: the computer program product of claim 31

The Admitted Prior Art does not expressly call for: wherein the source identifier is a network protocol address

Callon teaches: wherein the source identifier is a network protocol address (Hashing the destination address to determine key and then utilizing the key to determine the next hop which inherently requires inserting the next hop destination address into the packet

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the network address of Callon in place of the key of the Admitted Prior Art in order to build a system which can route packets.

Referring to claim 40, the Admitted Prior Art teaches: the computer program product of claim 31

The Admitted Prior Art does not expressly call for: wherein the target identifier is a network physical address

Callon teaches: wherein the target identifier is a network physical address (Hashing the destination address to determine key and then utilizing the key to determine the next hop which inherently requires inserting the next hop destination address into the packet

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the network physical address of Callon to in place of the key of the Admitted Prior Art in order to build a system which can route packets.

Referring to claim 55, the Admitted Prior Art teaches: the method of claim 42,

The Admitted Prior Art does not expressly call for: wherein the source identifier is a network protocol address

Callon teaches: wherein the source identifier is a network protocol address (Hashing the destination address to determine key and then utilizing the key to determine the next hop which inherently requires inserting the next hop destination address into the packet

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the network address of Callon in place of the key of the Admitted Prior Art in order to build a system which can route packets.

Referring to claim 56, the Admitted Prior Art teaches: the method of claim 42,

The Admitted Prior Art does not expressly call for: wherein the target identifier is a network physical address

Callon teaches: wherein the target identifier is a network physical address (Hashing the destination address to determine key and then utilizing the key to determine the next hop which inherently requires inserting the next hop destination address into the packet

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the network physical address of Callon to in place of the key of the Admitted Prior Art in order to build a system which can route packets.

Referring to claim 71, the Admitted Prior Art teaches: the apparatus of claim 58

The Admitted Prior Art does not expressly call for: wherein the source identifier is a network protocol address

Callon teaches: wherein the source identifier is a network protocol address (Hashing the destination address to determine key and then utilizing the key to determine the next hop which inherently requires inserting the next hop destination address into the packet

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the network address of Callon in place of the key of the Admitted Prior Art in order to build a system which can route packets.

Referring to claim 72, the Admitted Prior Art teaches: the apparatus of claim 58
The Admitted Prior Art does not expressly call for: wherein the target identifier is a network physical address

Callon teaches: wherein the target identifier is a network physical address (Hashing the destination address to determine key and then utilizing the key to determine the next hop which inherently requires inserting the next hop destination address into the packet

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the network physical address of Callon to in place of the key of the Admitted Prior Art in order to build a system which can route packets.

Referring to claim 90, the Admitted Prior Art teaches: a routing method in a data processing system comprising the step of receiving a data packet (Figs 1B and 2D perform the method)

Receiving a data packet (Adapter per Fig 1B receives the packet) :

hashing the destination address to determine a table index into a table in a computer readable medium (The CPU hashes the key per Fig 2D in order to determine a table index into Target Set or table in RAM or ROM or computer readable medium)

reading the target address from a table entry using the table index, wherein the target address has been related and stored in the table entry based on a computed value from a relation computation using the table index and the target address as operands in the relation wherein the relation computation is a nearness function (Fig 2D)

The Admitted Prior Art does not expressly call for: hashing the destination address and modifying the data packet by storing the target address in the data packet as a next-hop destination address.

Callon teaches: hashing the destination address and modifying the data packet by storing the target address in the data packet as a next-hop destination address (Hashing the destination address to determine an inherent key and then utilizing the key to determine the next hop which inherently requires inserting the next hop destination address into the packet

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the hashing the destination address of Callon to the retrieving means the Admitted Prior Art and modifying the data packet by storing the target address in the data packet as a next-hop destination address of Callon to the modifying means of the Admitted Prior Art in order to build a system which can route packets.

In addition Admitted Prior Art teaches:
Regarding Claims 91, further comprising the a step of relating a particular table entry to a target address in which

For each target address in the set of target addresses, generating a computed value using the table index for the particular entry and a target address as operands in the relation computation to obtain a set of computed values (Fig 2D)

Choosing a computed value from the set of computed values based upon a mathematical relationship among the set of computed values (Fig 2D)

Determining a related target address for the particular entry based on the chosen computed value wherein the chosen computed value was computed using the related-target address as input (Fig 2D)

Regarding claim 92, further comprising: obtaining a

determining means for determining a related target address for the particular table entry based on the chosen computed value where the chosen computed value was computed using the related target address as input (CPUs per Fig 1B are determining means which perform determining per 226 and 232 per Fig 2D

set of target addresses (Fig 2D) for each table entry, relating a target address form the set of target addresses to a table entry such that each table entry is related with only one target address (Fig 2D)

And for each table entry storing in a table entry its related target address (Fig 2D)

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

12. Claims 9-11, 14-16, 20-22, 25-27, 31-33, 36-38, 42-44, 47-54, 58-60, 63-70, 74-76, & 79-86 are rejected under 35 U.S.C. 102(A) as being anticipated by the Admitted Prior Art.

Referring to claim 9, the Admitted Prior art teaches: a method in a data processing system for mapping a source identifier to a target identifier (Fig 2D performs the method) , the method comprising the steps of:

Hashing the source identifier to determine a table index into a table in a computer readable medium (222 hashes the key or source identifier to determine a hash value or table index in the Target Set per Fig 2D which is stored in RAM or ROM per Fig 1B)

Reading the target identifier from a table entry using the table index, wherein the target identifier has been related and stored in the table entry based on a computed value from a relation computation using the table index and the target identifier as operands in the relation computation (226 per Fig 2D reads the target identifier from Target Set per Fig 2D. The Target Set has a Target (Target Identifier) and Hash Value (table index) as operates in a relation computation)

In addition Admitted Prior Art teaches:

Regarding claim 10, further comprising a step of relating a particular table entry to a target identifier in which for each target identifier in the set of target identifiers, generating a computed value using the table index for the particular table entry and a target identifier as operands in the relation computation to obtain a set of computed values (Fig 2D and per Pg 1 Para 2 to Pg 6 Para 2)

Choosing a computed value from the set of computed values based upon a mathematical relationship among the set of computed values (Fig 2D and per Pg 1 Para 2 to Pg 6 Para 2) and

Determining a related target identifier for the particular entry based on the chosen computed value wherein the chosen computed value was computed using the related target identifier as input (Fig 2D and per Pg 1 Para 2 to Pg 6 Para 2)

Regarding claim 11, further comprising, prior to the step of reading the target identifier form the table entry:

Obtaining a set of target identifiers for each table entry, relating a target identifier from the set of target identifier to a table entry such that each table entry is related with only one target identifier and for each table entry storing a table entry it related target identifier (Fig 2D and per Pg 1 Para 2 to Pg 6 Para 2); and for each table entry storing in a table entry its related target identifier (Fig 2D and per Pg 1 Para 2 to Pg 6 Para 2)

Regarding claim 14, wherein the relation computation further comprises:

Receiving the table index and the target identifier as operands for the relation computation (Fig 2D and per Pg 1 Para 2 to Pg 6 Para 2)
Hashing the table index to generate a second hash value (Fig 2D and per Pg 1 Para 2 to Pg 6 Para 2)
Hashing the target identifier to generate a second has value (Fig 2D and per Pg 1 Para 2 to Pg 6 Para 2)
Hashing the first hash value and the second has value to generate a computed value (Fig 2D and per Pg 1 Para 2 to Pg 6 Para 2)

Regarding claim 15, obtaining a set of target identifiers wherein each target identifier identifies a computational resource such that each target identifier is related with only one computational resource (The Target A or B or C or target identifiers per Fig 2D refer to servers or clients per Fig 1A as computation resources per Pg 3 lines 14-25 & per Pg 4 lines 20-30)

Regarding claim 16, further comprising: associating a computation resource with a subset of a set of target identifier wherein each target identifier in the set of target identifier is related with only one computational resource and wherein a size of the subset of target identifier is

proportional to a computation capacity of the computational resource (The Target A or B or C or target identifiers per Fig 2D refer to servers or clients per Fig 1A or computation resources and the number of size of the targets is proportional to the computation capacity of the network and per Pg 3 lines 14-25 and per Pg 4 lines 20-30)

Referring to claim 20, the Admitted Prior art teaches: An apparatus for mapping a source identifier to a target identifier (Figs 1B and 2D are the apparatus) , the apparatus comprising:

First hashing means for hashing the source identifier to determine a table index into a table in a computer readable medium (CPU per Fig 1B is the first hashing means which performs 222 hashes the key or source identifier to determine a hash value or table index in the Target Set per Fig 2D which is stored in RAM or ROM per Fig 1B)

Reading means for reading the target identifier from a table entry using the table index, wherein the target identifier has been related and stored in the table entry based on a computed value from a relation computation using the table index and the target identifier as operands in the relation computation (CPU per Fig 1B is the reading means which performs 226 per Fig 2D reads the target identifier from Target Set per Fig 2D. The Target Set has a Target (Target Identifier) and Hash Value (table index) as operates in a relation computation)

In addition Admitted Prior Art teaches:

Regarding claim 21, further comprising the first relating means for relating a particular table entry to a target identifier (CPU per Fig 1B and per Fig 2D and per Pg 1 Para 2 to Pg 6 Para 2)

Generating means for generating for each target identifier in the set of target identifier a computed value using the table index for the particular entry and a target identifier as operands in the computation to obtain set of computed values (CPU per Fig 1B or generating means and per Pg 1 Para 2 to Pg 6 Para 2) and

Choosing means for choosing a computed value form the set of computed values based upon a mathematical relationship among the set of computed values (CPU per Fig 1B or choosing means and per Pg 1 Para 2 to Pg 6 Para 2)

Determining means for determining a related target identifier for the particular table entry based on the chosen computed value wherein the chosen computed value was computed using the related target identifier as an input (CPU per Fig 1B or determining means and per Pg 1 Para 2 to Pg 6 Para 2)

Regarding claim 22, further comprising,

First obtaining means for obtaining a set of target identifiers (CPU per Fig 1B or first obtaining means Fig 2D and per Pg 1 Para 2 to Pg 6 Para 2);

Second relating means for relating for each table entry a target identifier form the set of target identifiers to a table entry such that each table entry is related with only one target identifier (CPU per Fig 1B or second relating means per Fig 2D and per Pg 1 Para 2 to Pg 6 Para 2)

First storing means for storing in each table entry its related target identifier (The combination of 114 and 116 per Fig 1B or first storing means)

Regarding claim 25, further comprising a relation computation means for computing the relation computation wherein:
Receiving means for receiving the table index and the target identifier as operands for the relation computation means (CPU per Fig 1B or receiving means)
Second hashing means per for hashing the target identifier to generate a second hash value (CPU per Fig 1B and per Pg 1 Para 2 to Pg 6 Para 2);

Third hashing means for hashing the target identifier to generate a second has value (CPU per Fig 1B and per Pg 1 Para 2 to Pg 6 Para 2)

Further hashing means for hashing the first hash value and the second has value to generate a computed value (CPU per Fig 1B and per Pg 1 Para 2 to Pg 6 Para 2)

Regarding claim 26 further comprising a second obtaining means for obtaining a set of target identifier wherein the target identifier identifies a computation resource such that each target identifier is related with only one computational resource wherein each target identifier is the subset of target identifier identifies the computational resource and wherein a size of the subset of target identifiers is proportional to the computational capacity of the computation resource (CPU per Fig 1B or second obtaining means and per Pg 1 Para 2 to Pg 6 Para 2)

Regarding claim 27, further comprising: associating means for associating a computational resource with a subset of a set of target identifier, wherein each target identifier in the set of target identifiers is related with only one computational resource, wherein each target identifier in the subset of target identifiers identifies the computational resources, and wherein a size of the subset of target identifiers is proportional to a computational capacity of the computational resource (CPU per Fig 1B or associating means and per Pg 1 Para 2 to Pg 6 Para 2)

Referring to claim 31, the Admitted Prior art teaches: A computer program product for use on a data processing system for mapping a source identifier to a target identifier the computer program product (114 and 116 per Fig 1B are the computer readable medium which stored the computer program product) comprising:

Instructions for hashing the source identifier to determine a table index into a table in a computer readable medium (114 and 116 store the instructions for hashing the source identifier per Pg 1 Para 2 to Pg 6 Para 2)

Instructions for Reading means for reading the target identifier from a table entry using the table index, wherein the target identifier has been related and stored in the table entry based on a computed value from a relation computation using the table index and the target identifier as operands in the relation computation (114 and 116 store the instructions for hashing the source identifier per Pg 1 Para 2 to Pg 6 Para 2)

In addition Admitted Prior Art teaches:

Regarding claim 32, further comprising instructions for relating a particular table entry to a target identifier (114 and 116 store the instructions for hashing the source identifier per Pg 1 Para 2 to Pg 6 Para 2)

Instructions for generating for each target identifier in the set of target identifier a computed value using the table index for the particular entry and a target identifier as operands in the computation to obtain set of computed values (114 and 116 store the instructions for hashing the source identifier per Pg 1 Para 2 to Pg 6 Para 2)

Instructions for choosing a computed value form the set of computed values based upon a mathematical relationship among the set of computed values (114 and 116 store the instructions for hashing the source identifier per Pg 1 Para 2 to Pg 6 Para 2)

Instructions for determining a related target identifier for the particular table entry based on the chosen computed value wherein the chosen computed value was computed using the related target identifier as an input (114 and 116 store the instructions for hashing the source identifier per Pg 1 Para 2 to Pg 6 Para 2)

Regarding claim 33, further comprising instructions for obtaining a set of target identifiers (114 and 116 store the instructions obtaining target identifiers per Pg 1 Para 2 to Pg 6 Para 2)

Instructions for relating for each table entry a target identifier form the set of target identifiers to a table entry such that each table entry is related with only one target identifier (114 and 116 store the instructions obtaining target identifiers per Pg 1 Para 2 to Pg 6 Para 2)

Instructions for storing in each table entry its related target identifier (The combination of 114 and 116 per Fig 1B store instructions for storing)

In addition Admitted Prior Art teaches:
Regarding claim 36, wherein the relation computation further comprises:

Instructions for receiving the table index and the target identifier as operands for the relation computation means (The combination of 114 and 116 per Fig 1B store instructions for storing)

Instructions for hashing the table index to generate a first hash value (The combination of 114 and 116 per Fig 1B store instructions for storing)

Instructions for hashing the target identifier to generate a second hash value (The combination of 114 and 116 per Fig 1B store instructions for storing)

Instructions for hashing the first hash value and the second has value to generate a computed value ((The combination of 114 and 116 per Fig 1B store instructions for storing)

Regarding claim 37, further comprising instructions for obtaining a set of target identifiers wherein each target identifier identifies a computational resource wherein each target identifier is the subset of target identifier identifies the computational resource and wherein a size of the subset of target identifiers is proportional to the computational capacity of the computation resource (The combination of 114 and 116 per Fig 1B store instructions for storing)

Regarding claim 38, further comprising instructions for associating a computational resource with a subset of a set of target identifiers wherein each target identifier in the set of target identifiers is related with only one computational resource wherein each target identifier is the subset of target identifier identifies the computational resource and wherein a size of the subset of target identifiers is proportional to a computational capacity of the computational resource (The combination of 114 and 116 per Fig 1B store instructions for storing)

Referring to claim 42, the Admitted Prior art teaches: a method in a data processing system for mapping a source identifier to a target identifier (Fig 2D performs the method) , the method comprising the steps of:

Hashing the source identifier to determine a location identifier of a n entry in a data structure in a computer readable medium (222 hashes the key or source identifier to determine a hash value or table index in the Target Set or data structure per Fig 2D which is stored in RAM or ROM per Fig 1B)

Reading information associated with the target identifier from the entry in the data structure using the location

identifier wherein the information associated with the target identifier has been related to and stored in the entry based on a computed value from a relation computation using the table index and the target identifier as operands in the relation computation (226 per Fig 2D reads the target identifier from Target Set or data structure per Fig 2D which is stored on 114 &or 116 per Fig 1B or computer readable medium. The Target Set has a Target (Target Identifier) and Hash Value (table index) as operates in a relation computation)

In addition Admitted Prior Art teaches:

Regarding claim 43, further comprising a step of relating a particular entry in the data structure to a target identifier in which

for each target identifier in the set of target identifiers, generating a computed value using the table index for the particular table entry and a target identifier as operands in the relation computation to obtain a set of computed values (Fig 2D and per Pg 1 Para 2 to Pg 6 Para 2)

Choosing a computed value from the set of computed values based upon a mathematical relationship among the set of computed values (Fig 2D and per Pg 1 Para 2 to Pg 6 Para 2) and

Determining a related target identifier for the particular entry based on the chosen computed value wherein the chosen computed value was computed using the related target identifier as input (Fig 2D and per Pg 1 Para 2 to Pg 6 Para 2)

Regarding claim 44, further comprising: prior to the step of reading the information associated with the target identifier form the entry in the data structure: obtaining a set of target identifiers (Fig 2D and per Pg 1 Para 2 to Pg 6 Para 2); for each entry in the data structure, relating such that each entry in the data structure is related with only one target identifier (Fig 2D and per Pg 1 Para 2 to Pg 6 Para 2); for each entry in the data structure, storing in an entry information associated with its related target identifier (Fig 2D and per Pg 1 Para 2 to Pg 6 Para 2);

Regarding claim 47, wherein the relation computation further comprises:

Receiving the table index and the target identifier as operands for the relation computation (Fig 2D and per Pg 1 Para 2 to Pg 6 Para 2)
Hashing the table index to generate a second hash value (Fig 2D and per Pg 1 Para 2 to Pg 6 Para 2)
Hashing the target identifier to generate a second has value (Fig 2D and per Pg 1 Para 2 to Pg 6 Para 2)
Hashing the first hash value and the second has value to generate a computed value (Fig 2D and per Pg 1 Para 2 to Pg 6 Para 2)

Regarding claim 48 further comprising obtaining a set of target identifiers wherein each target identifier identifies a computational resource such that each target identifier is related with only one computational resource (The Target A or B or C or target identifiers per Fig 2D refer to servers or clients per Fig 1A as computation resources per Pg 3 lines 14-25 & per Pg 4 lines 20-30)

Regarding claim 49, further comprising: associating a computation resource with a subset of a set of target identifier wherein each target identifier in the set of target identifier is related with only one computational resource and wherein a size of the subset of target identifier is proportional to a computation capacity of the computational resource (The Target A or B or C or target identifiers per Fig 2D refer to servers or clients per Fig 1A or computation resources and the number of size of the targets is proportional to the computation capacity of the network and per Pg 3 lines 14-25 and per Pg 4 lines 20-30)

Regarding claim 50, further comprising: retrieving the target identifier using the information associated with the target identifier (Fig 2D and per Pg 1 Para 2 to Pg 6 Para 2) performing a computational process on a computation resource identified by the target identifier (Fig 2D and per Pg 1 Para 2 to Pg 6 Para 2)

Regarding claim 51, further comprising wherein the computation resource identified by the target identifier is a memory source (Fig 2D and per Pg 1 Para 2 to Pg 6 Para 2)

Regarding claim 52, further comprising wherein the computation resource identified by the target identifier in a data processing system (Fig 2D and per Pg 1 Para 2 to Pg 6 Para 2)

Regarding claim 53, wherein the information associated with the target identifier comprises the target identified (Fig 2D and per Pg 1 Para 2 to Pg 6 Para 2)

Regarding claim 54, wherein the data structure is a table and the location identifier is a table index (Fig 2D and per Pg 1 Para 2 to Pg 6 Para 2)

Referring to claim 58, the Admitted Prior art teaches: an apparatus for mapping a source identifier to a target identifier (Fig 2D is the apparatus) the apparatus comprising:

first hashing means for hashing the source identifier to determine a location identifier of an entry in a data structure in a computer readable medium (CPU per Fig 1B performs as a first hashing means. 222 hashes the key or source identifier to determine a hash value or table index in the Target Set or data structure per Fig 2D which is stored in RAM or ROM per Fig 1B)

reading means for reading information associated with the target identifier from the entry in the data structure using the location identifier wherein the information associated with the target identifier has been related to and stored in the entry based on a computed value from a relation computation using the table index and the target identifier as operands in the relation computation (CPU per Fig 1B performs as reading means. 226 per Fig 2D reads the target identifier from Target Set or data structure per Fig 2D which is stored on 114 &or 116 per Fig 1B or computer readable medium. The Target Set has a Target (Target Identifier) and Hash Value (table index) as operates in a relation computation)

In addition Admitted Prior Art teaches:

Regarding claim 59, further comprising a first relating means for relating a particular entry in the data structure to a target identifier wherein identifiers, generating means for generating a computed value using the table index for the particular table entry and a target identifier as operands in the relation computation to obtain a set of computed values (CPU per Fig 1B performs as first relating means per Fig 2D and per Pg 1 Para 2 to Pg 6 Para 2)

Choosing means for choosing a computed value from the set of computed values based upon a mathematical relationship among the set of computed values (CPU per fig 1B performs as a choosing means per Fig 2D and per Pg 1 Para 2 to Pg 6 Para 2) and

Determining means for determining a related target identifier for the particular entry based on the chosen computed value wherein the chosen computed value was computed using the related target identifier as input (CPU per Fig 1B performs as a determining means per Fig 2D and per Pg 1 Para 2 to Pg 6 Para 2)

Regarding claim 60, the apparatus of claim 59 further comprising a step of reading the information associated with the target identifier from the entry in the data structure

First obtaining means for obtaining a set of target identifiers (CPU per Fig 1B performs as a first obtaining means per Fig 2D and per Pg 1 Para 2 to Pg 6 Para 2)

Second relating means for relating for each entry in the data structure a target identifier from the set of target identifiers to an entry in the data structure such that each entry in the data structure is related with only one target identifier (CPU per Fig 1B performs as a second relating means per Fig 2D and per Pg 1 Para 2 to Pg 6 Para 2)

First storing means for storing in each entry in the data structure information associated with its related target identifier (RAM and ROM per Fig 1B and per Pg 1 Para 2 to Pg 6 Para 2 first storing means)

Regarding claim 63, wherein the relation computation further comprises:

Receiving means for receiving the location identifier and the target identifier as operands for the relation computation (CPU per Fig 1B or receiving means)

Second hashing means for hashing the location identifier to generate a first hash value (CPU per Fig 1B performs the function of the second hashing means per Pg 1 Para 2 to Pg 6 Para 2)

Third hashing means for hashing the target identifier to generate a second hash value (CPU per Fig 1B performs the third hashing means per Pg 1 Para 2 to Pg 6 Para 2) and

Fourth hashing means for hashing the first hash value and the second hash value to generate a computed value (CPU per Fig 1B performs the fourth hashing means per Pg 1 Para 2 to Pg 6 Para 2)

Regarding claim 64 further comprising: second obtaining a set of target identifiers where each target identifier identifies a computational resource such that each target identifier is related with only one computational resource (Pg 1 Para 2 to Pg 6 Para 2)

Regarding claim 65, further comprising :

Associating means for associating a computational resource with a subset of set of target identifiers wherein each target identifier in the set of target identifiers is related with only one computational resource, wherein each target identifier is the subset of target identifiers identifies the computational resource and wherein a size o the subset of target identifies is proportional to a computation capacity of the computational resource (CPU per Fig 1B or associating means and per Pg 1 Para 2 to Pg 6 Para 2)

Regarding claim 66, further comprising: retrieving means for retrieving the target identifier using the information associated with the target identifier (CPU per Fig 1B or retrieving means per Pg 1 Para 2 to Pg 6 Para 2)

performing means for performing a computational process on a computational resource identified by the target identifier (CPU per fig 1B or performing means per Pg 1 Para 2 to Pg 6 Para 2)

Regarding claim 67, further comprising wherein the computation resource identified by the target identifier is a memory source (Fig 2D and per Pg 1 Para 2 to Pg 6 Para 2)

Regarding claim 68, further comprising wherein the computation resource identified by the target identifier in a data processing system (Fig 2D and per Pg 1 Para 2 to Pg 6 Para 2)

Regarding claim 69, wherein the information associated with the target identifier comprises the target identified (Fig 2D and per Pg 1 Para 2 to Pg 6 Para 2)

Regarding claim 70, wherein the data structure is a table and the location identifier is a table index (Fig 2D and per Pg 1 Para 2 to Pg 6 Para 2)

Referring to claim 74, the Admitted Prior art teaches: a computer program product on a computer readable medium for using in a data processing system for mapping a source identifier to a target identifier (The combination of 114 and 116 per Fig 1B are the computer readable medium that hold the instructions) , the computer program product comprising:

Instructions for hashing the source identifier to determine a location identifier of a n entry in a data structure in a computer readable medium (The combination of 114 and 116 per Fig 1B are the computer readable medium that hold the instructions for hashing as performed by 222 hashes the key or source identifier to determine a hash value or table index in the Target Set or data structure per Fig 2D which is stored in RAM or ROM per Fig 1B)

Instructions for reading information associated with the target identifier from the entry in the data structure using the location identifier wherein the information associated with the target

identifier has been related to and stored in the entry based on a computed value from a relation computation using the table index and the target identifier as operands in the relation computation (The combination of 114 and 116 per Fig 1B are the computer readable medium that hold the instructions for reading as performed by 226 per Fig 2D reads the target identifier from Target Set or data structure per Fig 2D which is stored on 114 &or 116 per Fig 1B or computer readable medium. The Target Set has a Target (Target Identifier) and Hash Value (table index) as operates in a relation computation)

In addition Admitted Prior Art teaches:
Regarding claim 75, further comprising instructions for relating a particular table entry to a target identifier (114 and 116 store the instructions for hashing the source identifier per Pg 1 Para 2 to Pg 6 Para 2)

Instructions for generating for each target identifier in the set of target identifier a computed value using the table index for the particular entry and a target identifier as operands in the computation to obtain set of computed values (114 and 116 store the instructions for hashing the source identifier per Pg 1 Para 2 to Pg 6 Para 2)

Instructions for choosing a computed value form the set of computed values based upon a mathematical relationship among the set of computed values (114 and 116 store the instructions for hashing the source identifier per Pg 1 Para 2 to Pg 6 Para 2)

Instructions for determining a related target identifier for the particular table entry based on the chosen computed value wherein the chosen computed value was computed using the related target identifier as an input (114 and 116 store the instructions for hashing the source identifier per Pg 1 Para 2 to Pg 6 Para 2)

Regarding claim 76, further comprising instructions for obtaining a set of target identifiers (114 and 116 store the instructions obtaining target identifiers per Pg 1 Para 2 to Pg 6 Para 2)

Instructions for obtaining a set of target identifiers (114 and 116 store the instructions obtaining target identifiers per Pg 1 Para 2 to Pg 6 Para 2)
Instructions for relating for each entry in the data structure, a target identifier form the set of target identifier to an entry in the data structure such that each entry in the data structure is related with only one target identifier(114 and 116 store the instructions relating per Pg 1 Para 2 to Pg 6 Para 2)

Instructions for storing in each table entry its related target identifier (The combination of 114 and 116 per Fig 1B store instructions for storing)

In addition Admitted Prior Art teaches:
Regarding claim 79, wherein the relation computation further comprises:

Instructions for receiving the table index and the target identifier as operands for the relation computation means (The combination of 114 and 116 per Fig 1B store instructions for storing)

Instructions for hashing the table index to generate a first hash value (The combination of 114 and 116 per Fig 1B store instructions for storing)

Instructions for hashing the target identifier to generate a second hash value (The combination of 114 and 116 per Fig 1B store instructions for storing)

Instructions for hashing the first hash value and the second has value to generate a computed value ((The combination of 114 and 116 per Fig 1B store instructions for storing)

Regarding claim 80, further comprising instructions for obtaining a set of target identifiers wherein each target identifier identifies a computational resource wherein each target identifier is the subset of target identifier identifies the computational resource and wherein a size of the subset of target identifiers is proportional to the computational capacity of the computation resource (The combination of 114 and 116 per Fig 1B store instructions for storing)

Regarding claim 81, further comprising instructions for associating a computational resource with a subset of a set of target identifiers wherein each target identifier in the set of target identifiers is related with only one computational resource wherein each target identifier is the subset of target identifier identifies the computational resource and wherein a size of the subset of target identifiers is proportional to a computational capacity of the computational resource (The combination of 114 and 116 per Fig 1B store instructions for storing)

Regarding claim 82, further comprising: instructions for retrieving the target identifier using the information associated with the target identifier (The combination of 114 and 116 per Fig 1B store the instructions for retrieving)

Instructions for performing a computational process on a computational resource identified by the target identifier (The combination of 114 and 116 per Fig 1B store the instructions for performing)

Regarding claim 83, wherein the computational resource identified by the target identifier is a memory location (Pg 1 Para 2 to Pg 6 Para 2)

Regarding claim 84, wherein the computational resource identified by the target identifier is a data processing system (Pg 1 Para 2 to Pg 6 Para 2)

Regarding claim 85, wherein the information associated with the target identifier comprises the target identifier (Pg 1 Para 2 to Pg 6 Para 2)

Regarding claim 86, wherein the data structure is a table and the location identifier is a table index (Pg 1 Para 2 to Pg 6 Para 2)

Claims 12-13, 19, 23-24, 30, 34-35, 41, 45-46, 57, 61-62, 73, & 77-78 are rejected under 35

U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art

Referring to claim 12, the Admitted Prior Art teaches: the method of claim 10

The Admitted Prior Art does not expressly call for: further comprising: dynamically removing a target identifier from a set of target identifier to obtain a modified set of target identifiers for each table entry previously related to the removed target identifier newly relating a target identifier from the modified set of target identifier to a table entry such that each table entry is related with only one target identifier and for each table entry previously related to the removed target identifier storing in a table entry it newly related target identifier.

The examiner takes official notice: updating tables to reflect network changes by a network administrator are well known in the art

It would have been obvious to one of ordinary skill in the art at the time of the invention to have a network administrator update the table to the system of the admitted prior art in order for the system to scale to network changes which would result in the claim limitation above.

Referring to claim 13,the Admitted Prior Art teaches: the method of claim 10 and the target identifiers are all unique (Fig 2D and per Pg 1 Para 2 to Pg 6 Para 2)

The Admitted Prior Art does not expressly call for: further comprising: dynamically adding a target identifier from the modified set of target identifiers to a table entry such that each table entry is related with only one target identifier and for each table entry storing in a table entry it related target identifier

For each table entry relating a target identifier from the modified set of target identifiers to a table entry such that each table entry is related with only one target identifier, and for each table entry storing in a table entry its related target identifier if its related target identifier differs from a target identifier previously stored in the table entry.

The examiner takes official notice: updating tables to reflect network changes by a network administrator are well known in the art

It would have been obvious to one of ordinary skill in the art at the time of the invention to have a network administrator update the table to the system of the admitted prior art in order for the system to scale to network changes which would result in the claim limitation above.

Referring to claim 19, the Admitted Prior Art teaches: the method of claim 9,

The Admitted Prior Art does not expressly call for: wherein the target identifier is a Uniform Resource Identifier

The examiner takes official notice that a Uniform Resource Identifier as an address is well known in the art

It would have been obvious to add the URL in place of the key of the admitted Prior Art in order to route traffic to a web site on the Internet.

Referring to claim 23, the Admitted Prior Art teaches: the apparatus of claim 21 and further comprising removing means (CPU per Fig 1B) and third relating means (CPU per Fig 1B) and second storing means (the combination of 114 and 116 per Fig 1B)

The admitted prior art does not expressly call for: dynamically removing a target identifier from a set of target identifiers to obtain a modified set of target identifiers or removing target identifiers or storing target identifiers

The examiner takes official notice: updating tables to reflect network changes by a network administrator are well known in the art

It would have been obvious to one of ordinary skill in the art at the time of the invention to have a network administrator update the table to the system of the admitted prior art in order for the system to scale to network changes which would result in the claim limitation above.

Referring to claim 24, the Admitted Prior Art teaches: the apparatus of claim 21 and further comprising adding means (CPU per Fig 1B) and fourth relating means (CPU per Fig 1B) and third storing means)

The admitted prior art does not expressly call for: dynamically adding a target identifier from a set of target identifiers to obtain a modified set of target identifiers or adding target identifiers or storing target identifiers

The examiner takes official notice: updating tables to reflect network changes by a network administrator are well known in the art

It would have been obvious to one of ordinary skill in the art at the time of the invention to have a network administrator update the table to the system of the admitted prior art in order for the system to scale to network changes which would result in the claim limitation above.

Referring to claim 30, the Admitted Prior Art teaches: the apparatus of claim 20

The Admitted Prior Art does not expressly call for: wherein the target identifier is a Uniform Resource Identifier

The examiner takes official notice that a Uniform Resource Identifier as an address is well known in the art

It would have been obvious to add the URL in place of the key of the admitted Prior Art in order to route traffic to a web site on the Internet.

Referring to claim 34, the Admitted Prior Art teaches: the computer program product of claim 32 and further storing instructions (The combination of 114 and 116 per Fig 1B store instructions for storing)

The admitted prior art does not expressly call for: dynamically removing a target identifier from a set of target identifiers to obtain a modified set of target identifiers or removing target identifiers or storing target identifiers

The examiner takes official notice: updating tables to reflect network changes by a network administrator are well known in the art

It would have been obvious to one of ordinary skill in the art at the time of the invention to have a network administrator update the table to the system of the admitted prior art in order for the system to scale to network changes which would result in the claim limitation above.

Referring to claim 35, the Admitted Prior Art teaches: the computer program product of claim 32 and further storing instructions (The combination of 114 and 116 per Fig 1B store instructions for storing)

The admitted prior art does not expressly call for: dynamically adding a target identifier from a set of target identifiers to obtain a modified set of target identifiers or adding target identifiers or storing target identifiers

The examiner takes official notice: updating tables to reflect network changes by a network administrator are well known in the art

It would have been obvious to one of ordinary skill in the art at the time of the invention to have a network administrator update the table to the system of the admitted prior art in order for the system to scale to network changes which would result in the claim limitation above.

Referring to claim 41, the Admitted Prior Art teaches: the computer program product of claim 31

The Admitted Prior Art does not expressly call for: wherein the target identifier is a Uniform Resource Identifier

The examiner takes official notice that a Uniform Resource Identifier as an address is well known in the art

It would have been obvious to add the URL in place of the key of the admitted Prior Art in order to route traffic to a web site on the Internet.

Referring to claim 45, the Admitted Prior Art teaches: the method of claim 43

The Admitted Prior Art does not expressly call for: further comprising: dynamically removing a target identifier from a set of target identifier to obtain a modified set of target identifiers for each table entry previously related to the removed target identifier newly relating a target identifier from the modified set of target identifier to a table entry such that each table entry is related with only one target identifier and for each table entry previously related to the removed target identifier storing in a table entry it newly related target identifier.

The examiner takes official notice: updating tables to reflect network changes by a network administrator are well known in the art

It would have been obvious to one of ordinary skill in the art at the time of the invention to have a network administrator update the table to the system of the admitted prior art in order for the system to scale to network changes which would result in the claim limitation above.

Referring to claim 46, the Admitted Prior Art teaches: the method of claim 43
and the target identifiers are all unique (Fig 2D and per Pg 1 Para 2 to Pg 6 Para 2)

The Admitted Prior Art does not expressly call for: further comprising: dynamically adding a target identifier from the modified set of target identifiers to a table entry such that each table entry is related with only one target identifier and for each table entry storing in a table entry it related target identifier

For each entry in the data structure relating a target identifier from the modified set of target identifiers to a table entry such that each table entry is related with only one target identifier, and for each entry in the data structure storing in an entry information associated with its related target identifier if its related target identifier differs from the target identifier previously related to the entry in the data structure

The examiner takes official notice: updating tables to reflect network changes by a network administrator are well known in the art

It would have been obvious to one of ordinary skill in the art at the time of the invention to have a network administrator update the table to the system of the admitted prior art in order for the system to scale to network changes which would result in the claim limitation above.

Referring to claim 57, the Admitted Prior Art teaches: the method of claim 42,

The Admitted Prior Art does not expressly call for: wherein the target identifier is a Uniform Resource Identifier

The examiner takes official notice that a Uniform Resource Identifier as an address is well known in the art

It would have been obvious to add the URL in place of the key of the admitted Prior Art in order to route traffic to a web site on the Internet.

Referring to claim 61, the Admitted Prior Art teaches: the apparatus of claim 59 and removing means (CPU per Fig 1B) and relating means (CPU per Fig 1B)

The Admitted Prior Art does not expressly call for: further comprising: dynamically removing a target identifier from a set of target identifier to obtain a modified set of target identifiers for each table entry previously related to the removed target identifier newly relating a target identifier from the modified set of target identifier to a table entry such that each table entry is related with only one target identifier and for each table entry previously related to the removed target identifier storing in a table entry it newly related target identifier.

The examiner takes official notice: updating tables to reflect network changes by a network administrator are well known in the art

It would have been obvious to one of ordinary skill in the art at the time of the invention to have a network administrator update the table to the system of the admitted prior art in order for the system to scale to network changes which would result in the claim limitation above.

Referring to claim 62, the apparatus of claim 59

and the target identifiers are all unique (Fig 2D and per Pg 1 Para 2 to Pg 6 Para 2)

The Admitted Prior Art does not expressly call for: further comprising: dynamically adding a target identifier from the modified set of target identifiers to a table entry such that each table

entry is related with only one target identifier and for each table entry storing in a table entry it related target identifier

For each entry in the data structure relating a target identifier from the modified set of target identifiers to a table entry such that each table entry is related with only one target identifier, and for each entry in the data structure storing in an entry information associated with its related target identifier if its related target identifier differs from the target identifier previously related to the entry in the data structure

The examiner takes official notice: updating tables to reflect network changes by a network administrator are well known in the art

It would have been obvious to one of ordinary skill in the art at the time of the invention to have a network administrator update the table to the system of the admitted prior art in order for the system to scale to network changes which would result in the claim limitation above.

Referring to claim 73, the Admitted Prior Art teaches: the apparatus of claim 58

The Admitted Prior Art does not expressly call for: wherein the target identifier is a Uniform Resource Identifier

The examiner takes official notice that a Uniform Resource Identifier as an address is well known in the art

It would have been obvious to add the URL in place of the key of the admitted Prior Art in order to route traffic to a web site on the Internet

Referring to claim 77, the Admitted Prior Art teaches: the computer program product of claim 75 and further storing instructions (The combination of 114 and 116 per Fig 1B store instructions for storing)

The admitted prior art does not expressly call for: dynamically removing a target identifier from a set of target identifiers to obtain a modified set of target identifiers or removing target identifiers or storing target identifiers

The examiner takes official notice: updating tables to reflect network changes by a network administrator are well known in the art

It would have been obvious to one of ordinary skill in the art at the time of the invention to have a network administrator update the table to the system of the admitted prior art in order for the system to scale to network changes which would result in the claim limitation above.

Referring to claim 78, the Admitted Prior Art teaches: the computer program product of claim 75 and further storing instructions (The combination of 114 and 116 per Fig 1B store instructions for storing)

The admitted prior art does not expressly call for: dynamically adding a target identifier from a set of target identifiers to obtain a modified set of target identifiers or adding target identifiers or storing target identifiers

The examiner takes official notice: updating tables to reflect network changes by a network administrator are well known in the art

It would have been obvious to one of ordinary skill in the art at the time of the invention to have a network administrator update the table to the system of the admitted prior art in order for the system to scale to network changes which would result in the claim limitation above.

Response to Amendment

10. Applicant's arguments with respect to claims 1-84

& 90-92 have been considered but are moot in view of the new ground(s) of rejection.

In addition applicant's arguments filed 9/24/07 have been fully considered but they are not persuasive.

The examiner respectively disagrees with the applicant argument that the 112 1st paragraph rejection has been traversed. The applicant clearly explained where entry containing target map is defined. The applicant did not provide any factual evidence showing where in the specification that the applicant defined where "relation computation using the table index and the target address as **operand**" is defined.

The examiner respectively disagrees with the applicant argument that the 112 2nd paragraph rejection has been traversed. The applicant has acted as a lexicographer and created a claim limitation for "relation computation using the table index and the target address as operand". The applicant has not provided any prior art reference which shows how one of ordinary skill in the art at the time of the invention would know exactly what this claim limitation means. The examiner asserts that applicant's specification lacks antecedent basis in defining what the relationship means.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert W. Wilson whose telephone number is 571/272-3075. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on 571/272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Robert W. Wilson

Robert W Wilson
Examiner
Art Unit 2619

RWW
10/29/07